

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Resilient Networks)	PS Docket No. 21-346
)	
Amendments to Part 4 of the Commission's)	
Rules Concerning Disruptions to)	PS Docket No. 15-80
Communications)	
)	
New Part 4 of the Commission's Rules)	ET Docket No. 04-35
Concerning Disruptions to Communications)	
)	

COMMENTS OF THE SATELLITE INDUSTRY ASSOCIATION

I. Introduction

The Satellite Industry Association (“SIA”)¹ submits these comments in response to the Federal Communications Commission’s (“FCC” or “Commission”) Notice of Proposed Rulemaking (“NPRM”) to improve the reliability and resiliency of communications networks during emergencies.² SIA supports the Commission’s objective of strengthening communications networks through provider cooperation. However, several of the FCC’s proposals need additional detail so that commenters have adequate notice to provide meaningful comments as required by the Administrative Procedure Act (“APA”). This includes, as discussed below, the FCC providing detailed proposals for the expansion of the Network Outage Reporting System (“NORS”) to broadband services and the mandatory participation in the

¹ SIA Executive Members include: Amazon; The Boeing Company; DIRECTV; EchoStar Corporation; HawkEye 360; Intelsat S.A.; Iridium Communications Inc.; Kratos Defense & Security Solutions; Ligado Networks; Lockheed Martin Corporation; OneWeb; Planet; SES Americom, Inc.; Space Exploration Technologies Corp.; Spire Global Inc.; and Viasat Inc. SIA Associate Members include: ABS US Corp.; Amazon Web Services; Artel, LLC; AST & Science; Astranis Space Technologies Corp.; Blue Origin; Eutelsat America Corp.; ExoAnalytic Solutions; Hughes; Inmarsat, Inc.; Kymeta Corporation; Leonardo DRS; Lynk; Omnispace; OneWeb Technologies; Ovzon; Panasonic Avionics Corporation; Peraton; SpaceLink; Telesat Canada; ULA; UltiSat and XTAR, LLC.

² See *Resilient Networks et al.*, Notice of Proposed Rulemaking, PS Dkt. Nos. 21-346 and 15-80 and ET Docket No 04-35 (2021).

Disaster Information Reporting System (“DIRS”) for satellite providers. Accordingly, the FCC should issue a supplemental public notice in this proceeding that provides a clear definition of a “broadband outage” and include potential thresholds that would require providers to file a report in NORS. Also, the FCC must include a sample template of DIRS reporting so that satellite operators can review the FCC proposal for the data it seeks to collect. Finally, the Wireless Resiliency Cooperative Framework (“Framework”) should not be expanded to satellite operators, since a significant number of the provisions contained in the Framework are not applicable to satellite networks.

II. Background

Satellite broadband service, besides its importance to providing day-to-day broadband services, plays an especially critical role during natural disasters when terrestrial services might not be available.³ Satellite systems offer the resiliency to withstand the impacts of natural disasters and provide broadband connectivity to those in need within minutes. Both emergency providers and consumers alike rely on that resiliency. SIA members have provided a range of critical broadband connections in response to disasters.⁴ After Hurricane Maria devastated Puerto Rico, the U.S. Virgin Islands and the surrounding region in 2017, SIA members immediately acted to reconnect critical infrastructure.⁵ For example, Hughes Network Systems, LLC (“Hughes”) provided broadband connections to hospitals and community shelters in Puerto Rico and also deployed over 1,500 VSATs across the island.⁶ Meanwhile,

³ Local and federal agencies such as FEMA regularly pre-purchase satellite terminals in preparation for storm season. *See* SatMagazine: “Path Diversity With Satellite Connectivity Fortifies Comms for Emergency Response,” available at <http://www.satmagazine.com/story.php?number=437372268> (last visited December 6, 2021).

⁴ *See, e.g.,* SIA, *When Hurricanes Strike: Satellites Play a Critical Role in Saving Lives and Providing Critical Services Before and After a Weather Disaster*, White Paper (May 2021), [Mktg21-Hurricane-Document-w-Updates-May-6th-FINAL-Standard-Pdf.pdf](https://www.sia.org/~/media/Files/2021/05/Mktg21-Hurricane-Document-w-Updates-May-6th-FINAL-Standard-Pdf.pdf) (sia.org) (“SIA Hurricane White Paper”).

⁵ *Id.* at Appendix A.

⁶ *See* Hughes Blog: “When Lives Depend on Lines of Communication, Satellite Delivers,” available at <https://government.hughes.com/resources/when-lives-depend-lines-communication-satellite-delivers> (last visited November 29, 2021) and Hughes Blog: “Lessons in Disaster Relief: the importance of communications resiliency,” available at <https://www.hughes.com/resources/blog/emergency-communications/emergency-communications> (last visited December 6, 2021).

SES deployed its O3b nongeostationary orbit satellite connectivity to help restore 4G LTE services in Puerto Rico;⁷ Telesat responded to a telecommunications service provider and established two VSAT networks in Puerto Rico;⁸ and usage of Iridium's devices increased to 5,000 per day from an average of ten per day and daily minutes of usage increased to 20,000 from an average of approximately 500 minutes.⁹ This is just a small sample of the numerous network resiliency and disaster recovery solutions that SIA members have delivered and continue to offer.¹⁰

Accordingly, SIA is uniquely positioned to comment in this proceeding because its members possess significant experience in meeting the needs of all users, including emergency responders, during natural and man-made disasters and emergencies.

III. Additional Information on Potential NORS and DIRS Changes Is Needed to Provide the Satellite Industry Adequate Notice to Comment

While SIA supports the FCC seeking comment on updating its NORS reporting to include broadband outages, the Commission's NPRM fails to provide adequate notice for industry members to provide comment as required in the APA.¹¹ To comply with the statute, the FCC must provide a "reasonable and meaningful opportunity to participate in the rulemaking process."¹² Regarding broadband outage reporting, as opposed to setting forth a detailed proposal, the NPRM simply cites its proposal from six years prior.¹³ Additionally, the FCC fails to provide proposed threshold requirements

⁷ See SES Networks, *SES Networks Works with Project Loon to Restore Connectivity in Puerto Rico*, Press Release (Oct. 23, 2017), <https://www.ses.com/press-release/ses-networks-works-project-loon-restore-connectivity-puerto-rico>; see also SES Networks, *Delivering 4G/LTE Services*, Press Release (May 6, 2019), <https://www.ses.com/case-study/delivering-4glte-services>.

⁸ SIA Hurricane White Paper at Appendix A.

⁹ Chris Gebhardt, *Iridium satellite communication aids Caribbean/Puerto Rico recovery efforts*, NASA SpaceFlight.com (Oct. 28, 2017), <https://www.nasaspaceflight.com/2017/10/iridium-satellite-aids-caribbeanpuerto-rico-recovery/>

¹⁰ *Id.*

¹¹ See 5 U.S.C. § 553(b).

¹² See *Forester v. CPSC*, 559 F.2d 774, 787 (D.C. Cir. 1977).

¹³ See *Amendments to Part 4 of the Commission's Rules Concerning Disruptions to Communications*, Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration, 31 FCC Rcd 5817, 5863-76 (2016).

to trigger a broadband outage report. Without a detailed proposal including updated definitions and thresholds for reporting, commenters cannot provide meaningful feedback. Accordingly, the FCC should update its request for comments to include the additional details needed to give industry members an opportunity to provide meaningful input.

Additionally, the FCC asks whether certain satellite operators should be required to participate in DIRS, but fails to fully describe its proposal. Participation in DIRS is current voluntary, and if the FCC is going to consider mandating participation instead, it must provide adequate notice to affected industries by clearly describing what would trigger a reporting obligation and what information systems would be required to submit. Supplying a sample template of data proposed to be collected is necessary for service providers to assess the viability of participating in DIRS and to meet APA requirements.

IV. The Wireless Resiliency Cooperative Framework Is Not Appropriate for Satellite Services

The Wireless Resiliency Cooperative Framework covers a variety of areas including: providing reasonable roaming under disaster agreements; fostering aid through the sharing of physical assets; convening with local public safety offices to ensure municipalities are prepared for disasters; and increasing consumer readiness and public awareness.¹⁴ While SIA recognizes the importance of the Framework for restoring wireless networks, the overwhelming majority of these commitments are not appropriate for satellite. For example, satellite networks do not have the ability to “roam” on other satellite networks. Similarly, because of the specific, technical characteristics of satellite networks, it is difficult, if not impossible, to share infrastructure such as gateways. Therefore, expanding the Framework to satellite operators would not provide any public interest benefits.

However, even without a similar framework, satellite operators have traditionally been, and continue to be, committed to voluntarily working together and supporting one another during disasters and other

¹⁴ See Letter from CTIA to FCC, Improving Resiliency Reliability and Continuity of Mobile Wireless Communications Networks, PS Docket Nos. 13-239 and 11-60 (2016).

emergencies. For example, when a satellite operator faces capacity issues because of a facility failure, other operators supply the operator in need with additional capacity until the affected network resumes operations. Therefore, since satellite operators already work together to provide needed support, and the Wireless Resiliency Framework is not applicable to satellite networks, the FCC should not impose on satellite operators a framework that is not suited to their technology.

V. Conclusion

Based on the foregoing, SIA urges the FCC to release an updated public notice for comment providing additional specificity regarding its proposals on NORS and DIRS. Also, it is inappropriate to require the satellite industry to participate in the Wireless Resiliency Cooperative Framework because of the significant difference in technology between satellite and terrestrial wireless networks.

Respectfully submitted,

/s/

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